

REMARKS

Claims 2-13 and 15-29 are pending in this application. By this Amendment, claims 1 and 14 are canceled without prejudice to or disclaimer of the subject matter recited therein. Claims 2, 4, 6-13 and 15 are amended and claims 16-29 are added. No new matter is added.

I. Personal Interview

Applicants appreciate the courtesies extended to Applicants' representative during the personal interview conducted on February 12, 2004. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

II. Claim Rejections Under 35 U.S.C. §112

Claims 4, 5, 12 and 14 are rejected under 35 U.S.C. §112, second paragraph. As claim 14 is canceled, the rejection of that claim is moot. Claim 4 is amended in reply to the rejection. As claim 5 is dependent on claim 4, no further amendment of claim 5 is necessary.

Regarding the rejection of claim 12, the Office Action states that it is unclear what line is meant by the terms "the line" and "center line"?

As discussed during the interview, Applicants refer to Fig. 14C of the application showing an interval ΔW between a line C1 about which the electrodes 3A and 4A are arranged to be axi-symmetric, and a longitudinal center line C2 of the gas cavity 7 is preferably less than or equal to 1 mm. Thus, Applicants submit that claim 12, when read in light of the specification, is clear on its face. The test for definiteness under 35 U.S.C. §112, second paragraph, is whether "those skilled in the art would understand what is claimed when read in light of the specification" (see MPEP 2173.02). Therefore, Applicants request the rejection of claims 4, 5, 12 and 14 under 35 U.S.C. §112 be withdrawn.

III. Claim Rejections Under 35 U.S.C. §102(b)

Claims 1-8, 12 and 14 are rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,985,118 to Makino et al. (Makino). As claims 1 and 14 are canceled, the rejections of those claims is moot. Applicants respectfully traverse the rejection of claims 2-8 and 12.

Applicants assert that Makino does not disclose each and every feature recited in the rejected claims. For example, Makino does not disclose a gas sensor element comprising *inter alia*, an oxygen monitor cell including an oxygen ion-conducting member, a first monitor cell electrode, and a second monitor cell electrode which is exposed to the gas cavity, the oxygen monitor cell working to produce an electric signal indicative of a concentration of the oxygen molecules within the gas cavity, and a sensor cell including an oxygen ion-conducting member, a first sensor cell electrode, and a second sensor cell electrode which is exposed to the gas cavity, the sensor cell working to produce an electric signal indicative of a concentration of specified oxygen containing gas within the gas cavity, wherein the second oxygen monitor cell electrode and the second sensor cell electrode have ends oriented to an upstream side of the flow of the gases within the gas cavity, one of the ends being shifted from the other in a direction of the flow of the gases by 2 mm or less, as recited in amended independent claim 11, or wherein an interval line between a line about which the second monitor cell electrode of the oxygen monitor cell, and the second sensor cell electrode of the sensor cell are arranged to be axi-symmetric and a center line of the gas path formed upstream of the second monitor cell and the second sensor cell within the gas cavity is 1 mm or less, as recited in amended independent claim 12.

Rather, as discussed during the interview, Makino discloses detector cell electrodes 61 and 62 disposed in the inner cavity 3 and the air passage 4, and an oxygen sensor cell having electrodes 511 and 512 disposed in the inner cavity and the air passage (see Fig. 1B of Makino). A pinhole 2 is disposed through the electrolyte layer A into the inner cavity 3. Both of the electrodes 511 and 61 of the oxygen sensor cell and detector cell, respectively, lie within the

direct path of the pinhole, and therefore in the direct path of the flow of gases entering through the pinhole into the inner cavity 3. Furthermore, the ends of the respective electrodes are not shifted from one another in a direction of the flow of the gases by 2 mm or less. Rather, the electrodes are in the same respective position relative to one another. Accordingly, Makino does not disclose the features recited in the amended independent claim 11, or the claims depending therefrom.

Additionally, an interval line between a line about which the second monitor cell electrode of the oxygen monitor cell and the second sensor cell electrode of the sensor cell which is arranged to be axi-symmetric, and a center line of a gas path formed upstream of the second monitor cell and the second sensor cell within the gas cavity is not 1 mm or less, as recited in amended independent claim 12. Accordingly, Makino does not disclose each and every feature recited in claim 12 or the dependent claims depending therefrom. Accordingly, Applicants respectfully request the rejection of claims 1-8, 12 and 14 under 35 U.S.C. §102(b) be withdrawn.

IV. Claim Rejections under 35 U.S.C. §103

Claims 11, 12, 14 and 15 are rejected under 35 U.S.C. §103(a) as unpatentable over Makino. As claim 14 is canceled, the rejection of that claim is moot. The rejection of claims 11, 12 and 15 is traversed.

Applicants assert that claims 11, 12 and 15 are allowable for at least the reasons discussed above regarding the rejection of the claims under 35 U.S.C. §102(b). Accordingly, Applicants respectfully request the rejection of claims 11, 12, 14 and 15 under 35 U.S.C. §103(a) be withdrawn.

Claims 7 and 9 are rejected under 35 U.S.C. §103(a) as unpatentable over Makino in view of the English Abstract of JP 11-344467. The rejection is respectfully traversed.

Applicants respectfully request that before any further consideration of JP 11-344467, the PTO should provide a full translation of this Japanese reference. See Ex parte Gavin, 62 USPQ2d, 1680, Bd. of Pat. App. and Inter., December 17, 2001. As only the chambers 6, 7 and 8 are labeled and discussed in the Abstract, as understood from the Abstract of JP 11-344467, the reference fails to overcome the deficiencies of Makino discussed above. Furthermore, Applicants submit that claims 7 and 9 are allowable for their dependency on independent claim 11, as well as for the additional features recited therein.

Claim 10 is rejected under 35 U.S.C. §103(a) as unpatentable over Makino in view of U.S. Patent 6,274,016 to Hasei et al. (Hasei) or U.S. Patent 6,280,588 to Kato et al. (Kato); and claim 13 is rejected under 35 U.S.C. §103(a) as unpatentable over Makino in view of U.S. Patent 6,238,536 to Lundgren et al. (Lundgren). The rejections are respectfully traversed.

Applicants assert that claims 10 and 13 are allowable for at least their dependency on independent claim 11, as well as for the additional features recited therein. Furthermore, none of the combination of references, whether considered alone or in combination, disclose or suggest all of the additional features recited in the claims.

V. New Claims

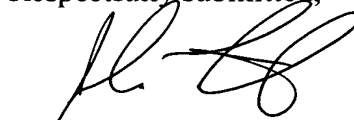
Applicants assert that claims 16-29 are allowable for their dependency on their respective base claim for the reasons discussed above regarding claims 11 and 12, as well as for the additional features recited therein.

VI. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

John W. Fitzpatrick
Registration No. 41,018

JAO:JWF/aaw

Date: February 13, 2004

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--